

## HD 2307.0



### HD2307.0 THERMOMETER SENSORS: Pt100, Pt1000

**HD2307.0** is a portable instrument equipped with large LCD display. It measures temperature by means of immersion, penetration, contact or air probes. Its sensor can be 3 or 4 wires Pt100, Pt1000. Probes are equipped with an automatic recognition module: factory calibration data are stored inside. *The Max, Min* and *Avg* function calculate the maximum, minimum or average values. Other functions include: the relative measurement REL, the HOLD function, and the automatic switching-off system, excludable. **The instrument has IP67 protection degree.**

#### TECHNICAL SPECIFICATIONS OF THE INSTRUMENT

##### Instrument

Dimensions (Length x Width x Height)	140x88x38mm
Weight	160g (complete with Batteries)
Materials	ABS
Display	2x4½ digits plus symbols Visible area: 52x42mm

##### Operating conditions

Operating temperature	-5 ... 50°C
Storage temperature	-25 ... 65°C
Working relative humidity	0 ... 90% RH, no condensation
<b>Protection degree</b>	<b>IP67</b>

##### Power supply

Batteries	3 Batteries 1.5V type AA
Autonomy	200 hours with 1800mAh alkaline batteries
Current consumption with instrument off	< 20µA

##### Unit of measurement

°C - °F

##### Connections

Module input for probes	DIN45326 8 poles male Connector
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#### Measurement of temperature by Instrument

Pt100 measurement range	-200...+650°C
Pt1000 measurement range	-200...+650°C
Resolution	0.1°C
Accuracy	±0.05°C
Drift after 1 year	0.1°C/year

#### TECHNICAL DATA OF PROBES AND MODULES EQUIPPED WITH INSTRUMENT Temperature probes Pt100 sensor with SICRAM module

Model	Type	Application field	Accuracy
TP472I	Immersion	-196°C...+500°C	±0.25°C (-196°C...+300°C) ±0.5°C (+300°C...+500°C)
TP472I.0 1/3 DIN Thin Film	Immersion	-50°C...+300°C	±0.25°C (-50°C...+300°C)
TP473P.I	Penetration	-50°C...+400°C	±0.25°C (-50°C...+300°C) ±0.5°C (+300°C...+400°C)
TP473P.0 1/3 DIN Thin Film	Penetration	-50°C...+300°C	±0.25°C (-50°C...+300°C)
TP474C.0 1/3 DIN Thin Film	Contact	-50°C...+300°C	±0.3°C (-50°C...+300°C)
TP475A.0 1/3 DIN Thin Film	Air	-50°C...+250°C	±0.3°C (-50°C...+250°C)
TP472I.5	Penetration	-50°C...+400°C	±0.3°C (-50°C...+300°C) ±0.6°C (+300°C...+400°C)
TP472I.10	Penetration	-50°C...+400°C	±0.30°C (-50°C...+300°C) ±0.6°C (+300°C...+400°C)
TP49A.I Class A Thin Film	Immersion	-70°C...+250°C	±0.3°C (-70°C...-50°C) ±0.25°C (-50°C...+250°C)
TP49AC.I Class A Thin Film	Contact	-70°C...+250°C	±0.3°C (-70°C...-50°C) ±0.25°C (-50°C...+250°C)
TP49AP.I Class A Thin Film	Penetration	-70°C...+250°C	±0.3°C (-70°C...-50°C) ±0.25°C (-50°C...+250°C)
TP875.I	Globe-thermometer Ø150mm	-30°C...+120°C	±0.25°C
TP876.I	Globe-thermometer Ø50mm	-30°C...+120°C	±0.25°C
TP87.0 1/3 DIN Thin Film	Immersion	-50°C...+200°C	±0.25°C
TP878.0 1/3 DIN Thin Film TP878.1.0 1/3 DIN Thin Film	Photovoltaic	-40°C...+85°C	±0.25°C
TP879.0 1/3 DIN Thin Film	Compost	-20°C...+120°C	±0.25°C

#### Common features

Temperature drift @20°C	0.003%/°C
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#### 4 wires Pt100 and 2 wires Pt1000 Probes

Model	Type	Application field	Accuracy
TP47.100.0 1/3 DIN Thin Film	4 wires Pt100	-50...+250°C	1/3 DIN
TP47.1000.0 1/3 DIN Thin Film	2 wires Pt1000	-50...+250°C	1/3 DIN
TP87.100.0 1/3 DIN Thin Film	4 wires Pt100	-50...+200°C	1/3 DIN
TP87.1000.0 1/3 DIN Thin Film	2 wires Pt1000	-50...+200°C	1/3 DIN

#### Common features

Temperature drift @20°C	
Pt100	0.003%/°C
Pt1000	0.005%/°C

#### ORDERING CODES

**HD2307.0:** The kit consists of instrument HD2307.0, 3 per 1.5V alkaline Batteries, instruction manual and case. **Probes have to be ordered separately.**

#### Probes equipped with SICRAM module

- TP472I:** Immersion probe, Wire Wound Pt100 sensor. Stem Ø 3 mm, length 300 mm. Cable 2 meters long.
- TP472I.0:** Immersion probe, Thin Film Pt100 sensor. Stem Ø 3 mm, length 230 mm. Cable 2 meters long.
- TP473P.I:** Penetration probe, Wire Wound Pt100 sensor. Stem Ø 4mm, length 150 mm. Cable 2 meters long.
- TP473P.0:** Penetration probe, Thin Film Pt100 sensor. Stem Ø 4mm, length 150 mm. Cable 2 meters long.

**TP474C.0:** Contact probe, Thin Film Pt100 sensor. Stem  $\emptyset$  4mm, length 230mm, contact surface  $\emptyset$  5mm. Cable 2 meters long.

**TP475A.0:** Air probe, Thin Film Pt100 sensor. Stem  $\emptyset$  4mm, length 230mm. Cable 2 meters long.

**TP472I.5:** Penetration probe, Thin Film Pt100 sensor. Stem  $\emptyset$  6mm, length 500 mm. Cable 2 meters long.

**TP472I.10:** Penetration probe, Thin Film Pt100 sensor. Stem  $\emptyset$  6mm, length 1000mm. Cable 2 meters long.

**TP49A.I:** Immersion probe, Thin Film Pt100 sensor. Stem  $\emptyset$  2.7mm, length 150mm. Cable 2 meters long. Aluminium handle.

**TP49AC.I:** Contact probe, Thin Film Pt100 sensor. Stem  $\emptyset$  4 mm, length 150mm. Cable 2 meters long. Aluminium handle.

**TP49API:** Penetration probe, Thin Film Pt100 sensor. Stem  $\emptyset$  2.7mm, length 150mm. Cable 2 meters long. Aluminium handle.

**TP875.I:** Globe thermometer  $\emptyset$  150 mm with handle. Wire Wound Pt100 sensor complete of SICRAM module. Cable 2 meters long.

**TP876.I:** Globe thermometer  $\emptyset$  50 mm with handle. Wire Wound Pt100 sensor complete of SICRAM module. Cable 2 meters long.

**TP87.0:** Immersion probe, Thin Film Pt100 sensor. Stem  $\emptyset$  3 mm, length 70 mm. Cable 2 meters long.

**TP878.0:** Contact probe for solar panels. Thin Film Pt100 sensor. Cable 2 meters long.

**TP878.1.0:** Contact probe for solar panels. Thin Film Pt100 sensor. Cable 5 meters long.

**TP879.0:** Penetration probe for compost. Thin Film Pt100 sensor. Stem  $\emptyset$  8 mm, length 1000mm. Cable 2 meters long.

#### **Temperature probes without SICRAM module**

**TP47.100.0:** Immersion probe, Thin Film Pt100 sensor probe. Stem  $\emptyset$  3 mm, length 230mm. 4 wires connection cable with connector, 2 meters long.

**TP47.1000.0:** Thin Film Pt1000 sensor immersion probe. Stem  $\emptyset$  3 mm, length 230mm. 2 wires connection cable with connector, 2 meters long.

**TP47:** Only connector for probe connection without SICRAM module: direct 3 and 4 wires Pt100, 2 wires Pt1000.

**TP87.100.0** Immersion probe, Thin Film Pt100 sensor. Stem  $\emptyset$  3 mm, length 70mm. Cable 2 meters long. 4 wires connection cable with connector 1 meter long.

**TP87.1000.0** Immersion probe, Thin Film Pt100 sensor. Stem  $\emptyset$  3 mm, length 70mm. Cable 2 meters long. 2 wires connection cable with connector 1 meter long.